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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Timothy E Nauman Esq  
Fay Sharpe Fagan Minnich & McKee LLP  
1100 Superior Avenue 7th Floor  
Cleveland, OH 44114-2516

EXAMINER

ROY, SIKHA

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 05 01 2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/603.025

Applicant(s)

BIGIO ET AL.

Examiner

Sikha Roy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

## Attachments

- 1) ☒ Notice of References Cited (PTO-894)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-943)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other \_\_\_\_\_

## DETAILED ACTION

### *Specification*

The disclosure is objected to because of the following informalities:

Page 5 line 22, "filament 102" should be replaced by --filament 104--.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,225,731 to Auyang in view of U. S. Patent 5,017,839 to Arlt et al.

Referring to claims 1 and 10 Auyang discloses (column 2 lines 43-67 Fig.1) a light source 10 comprising an internally mounted quartz (light transmissive) ellipsoidal shaped lamp envelope (shroud) 12 disposed centrally between two tubular portions 32,34 disposed on opposite ends of the ellipsoidal portion, a filament 14 centrally disposed within the envelope and an infrared reflecting filter coating formed on the ellipsoidal shroud(column 3 lines 22-25) to reflect infrared energy generated by the filament back to the filament to improve efficiency of the lamp.

Claims 1 and 10 differ from Auyang in that Auyang does not disclose the totally reflecting coating disposed on at least one end of the envelope in surrounding relation to the filament.

Arlt et al. in relevant art of discharge lamp disclose (column 2 lines 13-16 column 3 lines 27-30 Fig. 1) a reflective coating 8 at the end portions 7 of the envelope which reflects non-visible radiation transmitting only visible radiation. Arlt et al. further disclose (column 4 lines 4,5) providing coating substantially improves the light output characteristics of the lamp.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to include the reflecting coating on end portion of the envelope of Auyang as suggested by Arlt et al. for improving the light output characteristics of the lamp.

Regarding claims 2 and 3 Auyang discloses (column 3 lines 10-15) a pair of lead wires 42,44 connected to opposite ends 38,36 of the filament.

Referring to claims 4 and 13 Auyang discloses (claim 3 column 4 lines 46-51) the halogen lamp wherein the filament is located within the shroud, with a first end of the filament positioned approximately at a first foci of the ellipsoidal shroud and a second end of the filament positioned approximately at a second foci of the ellipsoidal shroud. The recitation 'for absorbing substantially all the radiation reflected from the infrared reflective filter and totally reflecting coating' has not been given patentable weight because is considered an intended used recitation. It has been held that a recitation

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does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ 2d 1647 (1987).

Referring to claims 5 and 14 Auyang discloses (column 3 lines 26-29) infrared reflecting coating includes alternating layers of  $\text{SiO}_2$  and  $\text{Ta}_2\text{O}_5$  of different refractive indices. The recitation 'for selectively passing desired radiation through and reflecting unwanted radiation to the filament' has not been given patentable weight because is considered an intended used recitation. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ 2d 1647 (1987).

Regarding claim 6 and 15 Auyang discloses (column 3 lines 29,30) the infrared filter coating reflects infrared radiation.

Regarding claim 7 and 16 Arlt et al. disclose (column 9 lines 40-43) the coating on the end portions of the discharge vessel reflecting visible and invisible radiation back towards the filament.

Regarding claims 8 and 9 Arlt et al. disclose (column 3 lines 31-35 Fig.1) the lateral axis of the lamp and a connection line between the center of the discharge vessel and the inner edge of the coating forms an angle between  $50^\circ$  and  $55^\circ$  and hence the edge of the coating subtends an angle preferably between  $40^\circ$  ( $90^\circ$ - $50^\circ$ ) and  $35^\circ$  ( $90^\circ$ - $55^\circ$ ) from the axis aligned with the filament.

Regarding claims 11, 12 and 13 Arlt et al. disclose (column 3 lines 31-35 Fig.1)

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discharge vessel to the press seals 3) extending from the opposite ends of ellipsoidal portion of the lamp.

Claims 17 and 18 recite essentially the same limitations as of claims 8 and 9 and hence are rejected for the same reason.

Referring to claim 20 Auyang discloses (column 4 lines 15,16, Fig. 3) the lamp mounted within a parabolic reflector receiving light from the light source.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following prior art references are cited to further show the state of the art with respect to halogen lamps provided with reflecting coating.

U. S. Patent 4,375,605 to Fontana et al.

U. S. Patent 4,710,677 to Halberstadt et al.

U. S. Patent 4,794,297 to Gaugel et al.

U. S. Patent 5,506,471 to Kosmatka et al.

U. S. Patent 6,239,550 to Maeda.

### ***Contact Information***

Any inquiry should be directed to:


Patent Attorney, Patent Department, 1000 North 17th Street, Suite 100, Arlington, VA 22209

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (703) 305-4794. The fax phone number for the organization is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

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Sikha Roy  
Patent Examiner  
Art Unit 2879



NIMESHKUMAR D. PATEL  
SUPERVISOR